



Somos® Stereolithography Materials Selection Guide

Properties

Benefits/Type	Appearance	Viscosity (cps @ 30°C)	Photospeed (E ₁₀ ml/cm ²)	Tensile Modulus (ksi) ASTM D638	Tensile Strength (ksi) ASTM D638	Elongation ASTM D638	Izod Impact Notched (ft-lb/in) ASTM D256	Heat Deflection Temperature @ 66 psi (°F) ASTM D648	Heat Deflection Temperature @ 264 psi (°F) ASTM D648	
PP-LIKE AND FLEXIBLE										
Somos® 9120	Multi-Purpose, Easy-To-Use	Translucent	450	65	196	4.5	20% @ Yield	0.95	120°	N/A
Somos® 9420	Multi-Purpose, Robust	White	475	96	102	2.8	28% @ Yield	0.86	120°	99°
ABS-LIKE										
Somos® GP Plus 14122	All-Purpose, Water Resistant	White	340	64	364	6.9	7.5% @ Break	0.49	115°	106°
Somos® ProtoGen 18120*	All-Purpose, Heat Resistant	Translucent	300	57	389	7.7	7.5% @ Break	0.37	205°	120°
Somos® ProtoGen 18420*	All-Purpose, Heat Resistant	White	350	69	326	6.2	7.5% @ Break	0.39	205°	117°
Somos® ProtoGen 18920*	All-Purpose, Heat Resistant	Grey	350	76	321	6.8	6.5% @ Break	0.43	207°	N/A
TOUGH AND STRONG										
Somos® EvoLve 128	Highly Durable, Fast Processing	White	380	95	430	8.2	11% @ Break	0.73	126°	121°
Somos® NeXt	Highly Durable, Water Resistant	White	1,000	67	352	6.1	9% @ Break	0.94	133°	122°
Somos® NeXt LV Grey	Highly Durable, High Strength	Opaque Grey	480	100	454	9.1	6% @ Break	0.62	131°	127°
Somos® Taurus	Superior Heat Resistance, ABS-Like	Charcoal	360	76	325	6.5	23% @ Break	0.95	203°	167°
HIGH-TEMP AND COMPOSITE										
Somos® ProtoTherm 12120*	Heat Resistant, ABS-Like	Transparent Red	550	63	511	10.2	4.5% @ Break	0.22	259°	N/A
Somos® PerFORM*	Rigid, High Strength, Excellent Heat Resistance	Off-White	1,000	80	1,520	8.1	1.2% @ Break	0.32	514°	246°
INVESTMENT CASTING										
Somos® Element	Very Clean Burnout, Dimensionally Stable	Clear	125	68	460	7.7	2.3% @ Break	0.41	136°	127°
Somos® WaterShed XC 11122	Dimensionally Stable	Clear	260	54	402	7.3	15.5% @ Break	0.47	122°	120°
CLEAR, TRANSPARENT, PC-LIKE										
Somos® WaterClear Ultra 10122	High Clarity, Colorless, Fast Cure	Clear, Colorless	165	47	418	8.1	7.5% @ Break	0.47	117°	117°
Somos® WaterShed XC 11122	Good Clarity, Excellent Water and Chemical Resistance	Clear, Near Colorless	260	54	402	7.3	15.5% @ Break	0.47	122°	120°

Notes:

- * Values for materials that have been thermally post-cured;
- All listed products will function on any 355 nm SL system.
- Values are indicative, and final results depend on machine and processing parameters



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Somos® Stereolithography Materials Selection Guide Applications

	MATERIAL PROPERTIES/CHARACTERISTICS					KEY APPLICATION AREAS						
	Accuracy	High Temp	Moisture Resistance	Optical Clarity	Durability	Investment Casting	RTV/Master Patterns	Snap Fit Assemblies	General Purpose Models	Automotive	Wind Tunnel Testing	Rapid Tooling
PP-LIKE AND FLEXIBLE												
Somos® 9120	••		•	•	•••			•••	••	•••		
Somos® 9420	•		•		•••			•••	•	••		
ABS-LIKE												
Somos® GP Plus 14122			•••		••		••	••	•••	•••		•
Somos® ProtoGen 18120	•••	••	••	•	••		•••	••	•••	••		•
Somos® ProtoGen 18420	•••	••	••		••		•••	••	•••	••		•
Somos® ProtoGen 18920	•••	••	••		••		•••	••	•••	••		•
TOUGH AND STRONG												
Somos® EvoLve 128	•••		•••		••		•••	•••	•••	•••		••
Somos® NeXt	•		•••		•••		•••	•••	•••	•••		••
Somos® NeXt LV Grey	••		•••		••		•••	•••	••	••		••
Somos® Taurus	•••	••	••		•••		•••	•••	•••	•••		••
HIGH-TEMP AND COMPOSITE												
Somos® ProtoTherm 12120	•••	••	•••	•	•		•		•	••	••	
Somos® PerFORM	•••	•••	•••		•		••		•	••	•••	•••
INVESTMENT CASTING												
Somos® Element	•••		•••	••		•••						
Somos® WaterShed XC 11122	••		•••	••	••	•••	••	•	•••	•••		•
CLEAR, TRANSPARENT, PC-LIKE												
Somos® WaterClear Ultra 10122	•••		••	•••	•	••	•	•	•••	•••		
Somos® WaterShed XC 11122	••		•••	••	••	•••	••	•	•••	•••		•

BEST: ●●● BETTER: ●● GOOD: ●

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